(54) Title: LIST OUTPUT VITERBI DECODER WITH BLOCKWISE ACS AND TRACEBACK
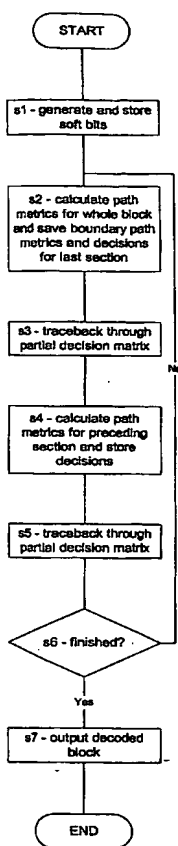
(57) Abstract: A Viterbi decoder for decoding convolutionally coded data blocks with a path memory region (314) used for storing a decision matrix having the length of one section only the data block. In a first ACS recursion, path metrics at boundaries of the sections of a data block are stored in a path metric memory. A second ACS recursion starts from the stored path metrics upon detection of an error. Hence, in a list output Viterbi decoder, the second ACS recursion can be limited to sections of the data blocks. Traceback is performed upon error detection, starting from an unreliable decision stored during a first decoding recursion. Hence, traceback can be limited to a number of data block sections.

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